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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,315	02/08/2002	Bradley R. Ringeisen	83,665	8845

26384 7590 09/30/2003

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EXAMINER

FULLER, ERIC B

ART UNIT PAPER NUMBER

1762

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/068,315	RINGEISEN ET AL.	
	Examiner	Art Unit	
	Eric B Fuller	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 November 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other:  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 14, 15, 19-21, and 36-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Bills et al. (US 5,308,737).

Bills teaches a laser deposition method. A laser-transparent polymeric ribbon is used as the target substrate for backside radiation (column 3, lines 10-15), this reads on the applicant's configuration of the receiving substrate and target substrate. A titanium radiation-absorbing layer may be used between the composite material and the target substrate (column 6, lines 8-20). The composite material comprises a matrix material that desorbs from the target substrate and a transfer material (column 4, lines 15-20). The matrix materials taught read on the applicant's claims (column 7, line 44 – column 9, line 54). The deposition may be repeated with different transfer materials (column 12, lines 52-58).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 14-17, 19-25, and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer (US 6,159,832) in view of Bills et al. (US 5,308,737).

Mayer teaches a pulsed laser deposition process for depositing electrically conductive materials on to glass or silicon substrates that uses the same configuration as the applicant, i.e. laser through back of transparent substrate (column 7, lines 15-24; column 10, lines 7-25). The laser is computer controlled and is directed through an objective (figure 2). It is taught that the composite material is a metal film that is partially vaporized such that a portion of the metal film is transferred to the substrate (column 3, lines 5-15). The reference fails to teach that the composite material is made of a matrix material and a transfer material.

However, Bills teaches that by having the composite be made of a matrix material that desorbs from the target substrate and a transfer material, the exposure fluence required to induce transfer is reduced (column 5, lines 30-35). Additional benefits are that since the matrix material is being vaporized instead of a portion of the metal, harmful metal vapors are not being released into the air and less metal is being wasted/used (column 5, lines 40-47). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the matrix material of Bills in the process taught by Mayer. By doing so, the exposure fluence required to induce transfer is reduced, less metal is wasted/used, and harmful metal vapors are not being released into the air.

Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer (US 6,159,832) in view of Bills et al. (US 5,308,737), as applied to claim 1 above, and further in view of Ross (US 5,743,560).

Mayer, in view of Bills, teaches the limitations of claim 1, as shown above. The combination of reference fails to explicitly teach machining the substrate with the laser. However, Ross teaches laser machining of substrates is that is performed in order to achieve design features. For glass substrates, the machining is performed after the coating, due to the powerful laser required to perform such a process. For non-glass substrates, the machining is performed before the coating (column 2, lines 4-43). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize the laser machining taught by Ross in the process taught by Mayer. By doing so, design features are achieved. To perform the machining prior to or after the coating would have been obvious depending on the substrate that is used, as taught by Ross.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bills, or Mayer (US 6,159,832) in view of Bills et al. (US 5,308,737), as applied to claim 1 above, and further in view of Williams et al. (US 4,987,006).

Bills, or Mayer in view of Bills, teaches the limitations of claim 1, as shown above. The combination of references fails to explicitly teach using quartz as the transparent target substrate. However, Williams teaches that quartz is transparent to laser light

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(column 8, lines 40-45). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize quartz as the target substrate. By doing so, one would have a reasonable expectation of success as Mayer and Bills both teach to use a transparent substrate and Williams teaches that quartz is transparent.

Claims 26-35 and 40-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bills et al. (US 5,308,737), or Mayer (US 6,159,832) in view of Bills et al. (US 5,308,737), as applied to claim 1 above, and further in view of Baer et al. (US 6,495,195 B2).

Bills, or Mayer in view of Bills, teaches the limitations of claim 1, as shown above. The combination of references fails to explicitly teach depositing biomaterials. However, Baer teaches a process of laser transferring biomaterials by a process that uses a similar transparent substrate, radiation-absorbing layer, and composite layer, as taught by Bills (column 2, lines 25-54). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to deposit biomaterials by the process taught by Bills, or Mayer in view of Bills. By doing so, one would have a reasonable expectation of success as the process taught by Bills is independent of transfer material, due to the matrix material causing the transfer, and Baer teaches a similar process that transfers biomaterials.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-39 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No. 6,177,151 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present invention requires a matrix material and a transfer material, which reads on being a colloidal or particulate suspension.

Claims 1-39 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 10/141,820. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present invention requires a matrix material and a transfer material, which reads on being a rheological fluid, as defined by applicant in claim 24 of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-39 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of copending Application No. 10/237,072. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present invention requires a matrix material and a transfer material, which reads on being a rheological fluid, as defined by applicant in claim 26 of the co-pending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B Fuller whose telephone number is (703) 308-6544. The examiner can normally be reached on Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck, can be reached at (703) 308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



EBF



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